

Remarks/Arguments:

Claim Rejections under 35 U.S.C. § 112

Claims 7, 9, 20, and 21 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully traverse.

Claim 7 has been amended, and now recites:

The power amplifier according to Claim 5, wherein the inverted envelope signal is injected via the distortion generating circuit to the high-frequency signal inputted to the amplifying means.

(Emphasis added.)

Claim 7 recites "the inverted envelope signal is injected via the distortion generating circuit," which is supported by Applicant's specification at least in Figure 14 and in the description of Embodiment 7, beginning on page 43.

No new matter has been introduced in the amending of Claim 7.

Regarding the Examiner's rejection of Claim 9, Applicant respectfully refers the Examiner at least to Figures 14, 20, 21, and 22, and the description of Embodiment 7 in the specification beginning on page 43: in particular p. 43, line 14 - p. 44, line 13. As shown in Figure 14, the inverted envelope signal is inputted to the distortion generating circuit 131 after passing through the variable delay circuit 134 and the variable attenuator 133.

Regarding the Examiner's rejection of Claims 20 and 21, the phrase "third level detecting means" is used to distinguish a feature of these claims from the features of "first level detecting means" in Claim 16 and "second level detecting means" in Claim 17. It will be apparent to one of ordinary skill in the art that the phrase "third level detecting means" does not refer to a means of detecting a third level, but rather, a third detection means for detecting a signal level of a high-frequency signal. Thus the "third level detecting means" is consistent with Applicant's first level detecting means and second level detecting means in Claims 16 and 17, respectively.

Claim Rejections under 35 U.S.C. § 102

Claims 1-6, 8, 9, 14, 16, and 26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Sahlman (US 6,934,341). Applicant respectfully traverses.

Independent Claim 1 recites the features of:

generating an inverted envelope signal by using the input signal or the high-frequency signal, the inverted envelope signal having an inverted envelope which is an inverted one of both envelopes of the high-frequency signal, and

injecting the inverted envelope signal into the high-frequency signal or the amplified high-frequency signal.

It is because of these features, at least, that Applicant's invention of Claim 1 is able to reduce a level difference between distortion components appearing on both sides of a signal band, as supported in the specification at least at page 27, lines 7-9.

By contrast, Sahlman does not teach or suggest the above features of Applicant's Claim 1. In asserting anticipation, the Examiner relies on Sahlman, column 5, line 58 to column 6, line 42; Figure 4; column 11, line 45 to column 12, line 40; and Figure 13. But Sahlman does not teach or suggest the generation and use of an inverted envelope signal in these cited lines and figures.

Applicant therefore respectfully submits that Claim 1 is not anticipated by Sahlman and that the rejection of this claim under 35 U.S.C. § 102(e) be withdrawn.

Applicant's Claim 2 is properly dependent from Claim 1. Applicant therefore respectfully submits that the rejection of Claim 2 be withdrawn for at least the same reasons as those presented with respect to Claim 1.

Independent Claim 3 recites the features of:

inverted envelope generating means of generating an inverted envelope signal by using the input signal or the high-frequency signal, the inverted envelope signal having an inverted envelope which is an inverted one of both envelopes of the high-frequency signal,

wherein the inverted envelope signal is injected into the high-frequency signal or the amplified high-frequency signal.

It is because of these features, at least, that Applicant's invention of Claim 1 is able to reduce a level difference between distortion components appearing on both sides of a signal band, as supported in the specification at least at page 27, lines 7-9.

By contrast, Sahlman does not teach or suggest the above quoted features of Applicant's Claim 3 in the Examiner's cited lines and figures. In particular, Sahlman does not teach or suggest at least the inverted envelope generating means in the Examiner's cited lines and figures. Applicant also notes that the Examiner does not indicate which specific feature or combination of features in Sahlman he believes to be equivalent to Applicant's specific features of Claim 3 quoted above.

Applicant therefore respectfully submits that Claim 3 is not anticipated by Sahlman and that the rejection of this claim under 35 U.S.C. § 102(e) be withdrawn.

Applicant's Claims 4-6, 8, 9, 14, 16, and 26 are properly dependent, either directly or indirectly from Claim 3. Applicant therefore respectfully submits that the rejection of Claims 4-6, 8, 9, 14, 16, and 26 be withdrawn for at least the same reasons as those presented with respect to Claim 3.

Allowable Subject Matter

The Examiner has objected to Claims 10-13, 15, 17-19, and 22-25 as being dependent upon a rejected base claim but states that they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for acknowledging that Claims 10-13, 15, 17-19, and 22-25 contain allowable subject matter.

Claims 10-13, 15, 17-19, and 22-25 are all dependent, directly or indirectly, from Claim 3. Based on arguments presented above, applicant respectfully submits that the Examiner's rejection of Claim 3 has been overcome and that Claim 3 is in condition for allowance. Applicant

Appln. No.: 10/629,267
Amendment Dated: February 16, 2006
Reply to Office Action of: December 16, 2005

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therefore respectfully submits that Claims 10-13, 15, 17-19, and 22-25 are also in condition for allowance for at least the same reasons stated above with respect to Claim 3.

Conclusion

In view of the above arguments and remarks, Applicant respectfully submits that all rejections and objections in the Office Action have been overcome, and that Claims 1-26, as amended, are in condition for allowance.

Respectfully submitted,



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Dated: February 16, 2006

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